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TECH CENTER 1600/2900

1633

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/687,911

DATE: 05/24/2001

TIME: 17:14:13

Input Set : A:\seqlist.txt

Output Set: C:\CRF3\05242001\I687911.raw

ENTERED

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4 <110> APPLICANT: Rostyslav Stoika (Inventor)
5 Gregory A. Horwitz (Inventor)
6 Xun Zhang (Inventor)
7 Shlomo Melmed (Inventor)
12 <120> TITLE OF INVENTION: MODULATING ACTIVATION OF LYMPHOCYTES AND
13 SCREENING POTENTIAL IMMUNOMODULATING AGENTS BY TARGETING
14 PITUITARY TUMOR TRANSFORMING GENE (PTTG) EXPRESSION AND/OR
15 FUNCTION
17 <130> FILE REFERENCE: CEDAR-44649
19 <140> CURRENT APPLICATION NUMBER: 09/687,911
20 <141> CURRENT FILING DATE: 2000-10-13
22 <150> PRIOR APPLICATION NUMBER: 09/569,956
23 <151> PRIOR FILING DATE: 2000-05-12
25 <150> PRIOR APPLICATION NUMBER: 08/894,251
26 <151> PRIOR FILING DATE: 1999-07-23
28 <150> PRIOR APPLICATION NUMBER: PCT/US86/21463
29 <151> PRIOR FILING DATE: 1997-11-21
31 <150> PRIOR APPLICATION NUMBER: 60/031,338
32 <151> PRIOR FILING DATE: 1996-11-21
34 <160> NUMBER OF SEQ ID NOS: 19
36 <170> SOFTWARE: FastSEQ for Windows Version 4.0
38 <210> SEQ ID NO: 1
39 <211> LENGTH: 974
40 <212> TYPE: DNA
41 <213> ORGANISM: Rattus rattus
43 <400> SEQUENCE: 1
44 aattcggcac gagccaacct tgagcatctg atcctcttgg cttctccttc ctatcgctga 60
45 gctggtaggc tggagacagt tgtttggtg ccaacatcaa caaacgattt ctgtagttta 120
46 gcgtttatga ccctggcgtg aagatttaag gtctggatta agcctggtga cttctccagc 180
47 tactttctaaa tttttgtgca taggtgctct ggtctctgtt gctgcttagt tcttccagcc 240
48 ttcttcaatg ccagttttat aatatgcagg tctctcccct cagtaatcca ggatggctac 300
49 tctgatcttt gttgataagg ataacgaaga gccaggcagc cgtttggtcat ctaaggatgg 360
50 attgaagctg ggctctggtg tcaaaacctt agatgggaaa ttgcagggtt caacgccacg 420
51 agtcggcaaa gtgttcggtg cccaggcctt gcctaaagcc agcaggaagg ctctgggaac 480
52 tgtcaacaga gttactgaaa agccagtga gtagtagtaa cccctgcaat cgaaacagcc 540
53 gactctgagt tgaaaaaaga tcaccgagaa gtctactaag acacaaggct ctgctcctgc 600
54 tcctgatgat gcctacccag aaatagaaaaa gttcttcccc ttcgatcctc tagattttga 660
55 gagttttgac ctgcctgaag agcaccagat ctcaactctc cccttgaatg gagtgcctct 720
56 catgatcctg aatgaagaga gggggcttga gaagctgctg cacctggacc ccccttcccc 780
57 tctgcagaag cccttcctac cgtgggaatc tgatccgttg ccgtctcctc ccagcgccct 840
58 ctccgctctg gatgttgaat tgccgcctgt ttgttacgat gcagatatat aaacgtctta 900
59 ctccctttata gtttatgtaa gttgtattaa taaagcattt gtgtgtaaaa aaaaaaaaaa 960
60 aaactcgaga gtac 974
62 <210> SEQ ID NO: 2
63 <211> LENGTH: 199
64 <212> TYPE: PRT
65 <213> ORGANISM: Rattus rattus

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67 <400> SEQUENCE: 2

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68 Met Ala Thr Leu Ile Phe Val Asp Lys Asp Asn Glu Glu Pro Gly Ser
69 1 5 10 15
70 Arg Leu Ala Ser Lys Asp Gly Leu Lys Leu Gly Ser Gly Val Lys Ala
71 20 25 30
72 Leu Asp Gly Lys Leu Gln Val Ser Thr Pro Arg Val Gly Lys Val Phe
73 35 40 45
74 Gly Ala Pro Gly Leu Pro Lys Ala Ser Arg Lys Ala Leu Gly Thr Val
75 50 55 60
76 Asn Arg Val Thr Glu Lys Pro Val Lys Ser Ser Lys Pro Leu Gln Ser
77 65 70 75 80
78 Lys Gln Pro Thr Leu Ser Val Lys Lys Ile Thr Glu Lys Ser Thr Lys
79 85 90 95
80 Thr Gln Gly Ser Ala Pro Ala Pro Asp Asp Ala Tyr Pro Glu Ile Glu
81 100 105 110
82 Lys Phe Phe Pro Phe Asp Pro Leu Asp Phe Glu Ser Phe Asp Leu Pro
83 115 120 125
84 Glu Glu His Gln Ile Ser Leu Leu Pro Leu Asn Gly Val Pro Leu Met
85 130 135 140
86 Ile Leu Asn Glu Glu Arg Gly Leu Glu Lys Leu Leu His Leu Asp Pro
87 145 150 155 160
88 Pro Ser Pro Leu Gln Lys Pro Phe Leu Pro Trp Glu Ser Asp Pro Leu
89 165 170 175
90 Pro Ser Pro Pro Ser Ala Leu Ser Ala Leu Asp Val Glu Leu Pro Pro
91 180 185 190
92 Val Cys Tyr Asp Ala Asp Ile
93 195

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96 <210> SEQ ID NO: 3

97 <211> LENGTH: 779

98 <212> TYPE: DNA

99 <213> ORGANISM: Homo sapiens

101 <400> SEQUENCE: 3

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102 atggccgcga gttgtggttt aaaccaggag tgccgcgcgt ccgttcaccg cggcctcaga 60
103 tgaatgcggc tgtaagacc tgcaataatc cagaatggct actctgatct atgttgataa 120
104 ggaaaatgga gaaccaggca cccgtgtggt tgctaaggat gggctgaagc tggggtctgg 180
105 accttcaatc aaagccttag atgggagatc tcaagtttca acaccacgtt ttggcaaaac 240
106 gttcgatgcc ccaccagcct tacctaaaag tactagaaaag gctttgggaa ctgtcaacag 300
107 agctacagaa aagtctgtaa agaccaaggg acccctcaaa caaaaacagc caagcttttc 360
108 tgccaaaaag atgactgaga agactgttaa agcaaaaagc tctgttcctg cctcagatga 420
109 tgccatcca gaaatagaaa aattctttcc cttcaatcct ctagactttg agagttttga 480
110 cctgcctgaa gagcaccaga ttgcgcacct ccccttgagt ggagtgcctc tcatgatcct 540
111 tgacgaggag agagagcttg aaaagctgtt tcagctgggc ccccttcac ctgtgaagat 600
112 gccctctcca ccatgggaat ccaatctgtt gcagtctcct tcaagcattc tgtcgaccct 660
113 ggatgttgaa ttgccacctg tttgctgtga catagatatt taaatttctt agtgcttcag 720
114 agtttgtgtg tatttgtatt aataaagcat tctttaacag ataaaaaaaa aaaaaaaaaa 779

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116 <210> SEQ ID NO: 4

117 <211> LENGTH: 202

118 <212> TYPE: PRT

119 <213> ORGANISM: Homo sapiens

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121 <400> SEQUENCE: 4
122 Met Ala Thr Leu Ile Tyr Val Asp Lys Glu Asn Gly Glu Pro Gly Thr
123 1 5 10 15
124 Arg Val Val Ala Lys Asp Gly Leu Lys Leu Gly Ser Gly Pro Ser Ile
125 20 25 30
126 Lys Ala Leu Asp Gly Arg Ser Gln Val Ser Thr Pro Arg Phe Gly Lys
127 35 40 45
128 Thr Phe Asp Ala Pro Pro Ala Leu Pro Lys Ala Thr Arg Lys Ala Leu
129 50 55 60
130 Gly Thr Val Asn Arg Ala Thr Glu Lys Ser Val Lys Thr Lys Gly Pro
131 65 70 75 80
132 Leu Lys Gln Lys Gln Pro Ser Phe Ser Ala Lys Lys Met Thr Glu Lys
133 85 90 95
134 Thr Val Lys Ala Lys Ser Ser Val Pro Ala Ser Asp Asp Ala Tyr Pro
135 100 105 110
136 Glu Ile Glu Lys Phe Phe Pro Phe Asn Pro Leu Asp Phe Glu Ser Phe
137 115 120 125
138 Asp Leu Pro Glu Glu His Gln Ile Ala His Leu Pro Leu Ser Gly Val
139 130 135 140
140 Pro Leu Met Ile Leu Asp Glu Glu Arg Glu Leu Glu Lys Leu Phe Gln
141 145 150 155 160
142 Leu Gly Pro Pro Ser Pro Val Lys Met Pro Ser Pro Pro Trp Glu Ser
143 165 170 175
144 Asn Leu Leu Gln Ser Pro Ser Ser Ile Leu Ser Thr Leu Asp Val Glu
145 180 185 190
146 Leu Pro Pro Val Cys Cys Asp Ile Asp Ile
147 195 200
150 <210> SEQ ID NO: 5
151 <211> LENGTH: 31
152 <212> TYPE: DNA
153 <213> ORGANISM: Artificial Sequence
155 <220> FEATURE:
156 <223> OTHER INFORMATION: Synthetic oligonucleotide.
158 <400> SEQUENCE: 5
159 gatgctctcc gcactctggg aatccaatct g 31
161 <210> SEQ ID NO: 6
162 <211> LENGTH: 32
163 <212> TYPE: DNA
164 <213> ORGANISM: Artificial Sequence
166 <220> FEATURE:
167 <223> OTHER INFORMATION: Synthetic oligonucleotide.
169 <400> SEQUENCE: 6
170 ttcacaagtt gaggggcgcc cagctgaaac ag 32
172 <210> SEQ ID NO: 7
173 <211> LENGTH: 32
174 <212> TYPE: DNA
175 <213> ORGANISM: Artificial Sequence
177 <220> FEATURE:
178 <223> OTHER INFORMATION: Synthetic oligonucleotide specific to pCI-neo

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179      plasmid. vector.
181 <400> SEQUENCE: 7
182 ggctagagta cttaatacga ctactatag gc 32
184 <210> SEQ ID NO: 8
185 <211> LENGTH: 31
186 <212> TYPE: DNA
187 <213> ORGANISM: Homo sapiens
189 <400> SEQUENCE: 8
190 ctatgtcaca gcaaacaggt ggcaattcaa c 31
192 <210> SEQ ID NO: 9
193 <211> LENGTH: 56
194 <212> TYPE: PRT
195 <213> ORGANISM: Homo sapiens
197 <400> SEQUENCE: 9
198 Met Ile Leu Asp Glu Glu Arg Glu Leu Glu Lys Leu Phe Gln Leu Gly
199 1      5      10      15
200 Pro Pro Ser Pro Val Lys Met Pro Ser Pro Pro Trp Glu Ser Asn Leu
201      20      25      30
202 Leu Gln Ser Pro Ser Ser Ile Leu Ser Thr Leu Asp Val Glu Leu Pro
203      35      40      45
204 Pro Val Cys Cys Asp Ile Asp Ile
205      50      55
208 <210> SEQ ID NO: 10
209 <211> LENGTH: 168
210 <212> TYPE: DNA
211 <213> ORGANISM: Homo sapiens
213 <400> SEQUENCE: 10
214 atgatccttg acgaggagag agagcttgaa aagctgtttc agctgggccc cccttcacct 60
215 gtgaagatgc cctctccacc atgggaatcc aatctgttgc agtctccttc aagcattctg 120
216 tcgaccctgg atgttgaaatt gccacctgtt tgctgtgaca tagatatt 168
218 <210> SEQ ID NO: 11
219 <211> LENGTH: 16
220 <212> TYPE: DNA
221 <213> ORGANISM: Artificial Sequence
223 <220> FEATURE:
224 <223> OTHER INFORMATION: Anchored primer sequence.
226 <400> SEQUENCE: 11
227 aagctttttt tttttg 16
229 <210> SEQ ID NO: 12
230 <211> LENGTH: 13
231 <212> TYPE: DNA
232 <213> ORGANISM: Artificial Sequence
234 <220> FEATURE:
235 <223> OTHER INFORMATION: Arbitrary primer sequence.
237 <400> SEQUENCE: 12
238 aagcttgctg ctc 13
240 <210> SEQ ID NO: 13
241 <211> LENGTH: 16
242 <212> TYPE: DNA

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243 <213> ORGANISM: Artificial Sequence
245 <220> FEATURE:
246 <223> OTHER INFORMATION: n = a, g, or c; Anchored primer sequence.
248 <400> SEQUENCE: 13
W--> 249 aagcttttttt ttttttn 16
251 <210> SEQ ID NO: 14
252 <211> LENGTH: 194
253 <212> TYPE: PRT
254 <213> ORGANISM: Mus musculus
256 <400> SEQUENCE: 14
257 Met Ala Thr Leu Ile Phe Val Asp Lys Asp Asn Glu Glu Pro Gly Arg
258 1 5 10 15
259 Arg Leu Ala Ser Lys Asp Gly Leu Lys Leu Gly Thr Gly Val Lys Ala
260 20 25 30
261 Leu Asp Gly Lys Leu Gln Val Ser Thr Pro Arg Val Gly Lys Val Phe
262 35 40 45
263 Asn Ala Pro Ala Val Pro Lys Ala Ser Arg Lys Ala Leu Gly Thr Val
264 50 55 60
265 Asn Arg Val Ala Glu Lys Pro Met Lys Thr Gly Lys Pro Leu Gln Pro
266 65 70 75 80
267 Lys Gln Pro Thr Leu Thr Gly Lys Lys Ile Thr Glu Lys Ser Thr Lys
268 85 90 95
269 Thr Gln Ser Ser Val Pro Ala Pro Asp Asp Ala Tyr Pro Glu Ile Glu
270 100 105 110
271 Lys Phe Phe Pro Phe Asn Pro Leu Asp Phe Asp Leu Pro Glu Glu His
272 115 120 125
273 Gln Ile Ser Leu Leu Pro Leu Asn Gly Val Pro Leu Ile Thr Leu Asn
274 130 135 140
275 Glu Glu Arg Gly Leu Glu Lys Leu Leu His Leu Gly Pro Pro Ser Pro
276 145 150 155 160
277 Leu Lys Thr Pro Phe Leu Ser Trp Glu Ser Asp Pro Lys Pro Pro Ser
278 165 170 175
279 Ala Leu Ser Thr Leu Asp Val Glu Leu Pro Pro Val Cys Tyr Asp Ala
280 180 185 190
281 Asp Ile
285 <210> SEQ ID NO: 15
286 <211> LENGTH: 945
287 <212> TYPE: DNA
288 <213> ORGANISM: Mus musculus
290 <400> SEQUENCE: 15
291 tcttgaactt gttatgtagc aggaggccaa atttgagcat cctcttggct tctctttata 60
292 gcagagattg taggctggag acagttttga tgggtgccaa cataaactga tttctgtaag 120
293 agttgagtggt tttatgaccg tggcgtgcag atttaggatc tggattaagc ctgttgactt 180
294 ctccagctac ttataaattt ttgtgcatag gtgccctggg taaagcttgg tctctgttac 240
295 tgcgtagttt ttccagccgt ctcaatgcc aatattcaggc tctctccctt agagtaatcc 300
296 agaattggcta ctcttatctt tgttgataag gataatgaag aaccgggccg ccgtttggca 360
297 tctaaggatg ggttgaagct gggcactggt gtcaaggcct tagatgggaa attgcagggt 420
298 tcaacgcctc gagtcggcaa agtgttcaat gctccagccg tgcctaaagc cagcagaaag 480
299 gctttgggga cagtcaacag agttgccgaa aagcctatga agactggcaa acccctccaa 540

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VERIFICATION SUMMARY

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Input Set : A:\seqlist.txt

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L:249 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:13

L:249 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:13

L:249 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13